

WHAT IS CLAIMED IS:

1. An electrode holding and dispensing assembly for use with an electrical discharge machining apparatus, said assembly comprising:
 - a guide rail having a channel formed therein;
 - an electrode dispenser positioned to deliver electrodes to said channel; and
 - a slider slidably received in said channel for advancing electrodes delivered to said channel from said dispenser to an electrode seating site located in said channel.
2. The electrode holding and dispensing assembly of claim 1 wherein said electrode dispenser comprises:
 - a cradle for holding an electrode magazine;
 - a plunger slidably received in said cradle; and
 - means for biasing said plunger toward an electrode magazine held in said cradle.
3. The electrode holding and dispensing assembly of claim 2 wherein said cradle comprises:
 - first and second side plates attached to first and second sides, respectively, of said guide rail;
 - a bottom plate disposed horizontally between said first and second side plates; and
 - a front plate disposed vertically between said first and second side plates, said front plate having an opening formed therein for receiving said plunger.
4. The electrode holding and dispensing assembly of claim 2 further comprising a handle attached to one end of said plunger.

5. The electrode holding and dispensing assembly of claim 2 wherein said means for biasing said plunger includes at least one spring.

6. The electrode holding and dispensing assembly of claim 1 wherein said guide rail includes lips overhanging said channel.

7. The electrode holding and dispensing assembly of claim 1 further comprising means for holding an electrode in said electrode seating site.

8. The electrode holding and dispensing assembly of claim 7 wherein said means for holding an electrode includes a clamp arm pivotally connected to said guide rail adjacent to said electrode seating site.

9. The electrode holding and dispensing assembly of claim 1 wherein said channel has locating pins formed therein at said electrode seating site.

10. An electrode holding and dispensing assembly for use with an electrical discharge machining apparatus, said assembly comprising:

a guide rail having an upper end and a lower end and a channel extending from said upper end to said lower end formed therein, said channel including an electrode seating site located adjacent to said lower end;

an electrode dispenser mounted to said guide rail, said electrode dispenser being positioned to deliver one electrode at a time to said channel;

a slider slidably received in said channel for advancing electrodes delivered to said channel from said dispenser to said electrode seating site; and

a clamp mounted to said guide rail for holding an electrode in said electrode seating site.

11. The electrode holding and dispensing assembly of claim 10 wherein said electrode dispenser comprises:

a cradle for holding an electrode magazine;

a plunger slidingly received in said cradle and having first and second ends, said first end being adapted to be received in an electrode magazine held in said cradle; and

means for biasing said plunger toward an electrode magazine held in said cradle.

12. The electrode holding and dispensing assembly of claim 11 wherein said cradle comprises:

first and second side plates attached to first and second sides, respectively, of said guide rail;

a bottom plate disposed horizontally between said first and second side plates; and

a front plate disposed vertically between said first and second side plates, said front plate having an opening formed therein for receiving said plunger.

13. The electrode holding and dispensing assembly of claim 11 further comprising a handle assembly attached to said second end of said plunger.

14. The electrode holding and dispensing assembly of claim 13 wherein said means for biasing said plunger includes a first spring located on one side of said cradle and a second spring located on another side of said cradle, each spring being connected at one end to said cradle and at another end to said handle assembly.

15. The electrode holding and dispensing assembly of claim 10 wherein said guide rail includes a ledge formed in said channel and lips

overhanging said channel, said ledge having a bottom edge and said electrode seating site being located below said bottom edge.

16. The electrode holding and dispensing assembly of claim 15 wherein said slider includes a handle and a tongue connected together, said tongue being received in said channel between said ledge and said lips.

17. The electrode holding and dispensing assembly of claim 16 wherein said tongue has a bottom edge, wherein said bottom edge of said tongue is flush with said bottom edge of said ledge when said slider is fully inserted into said channel.

18. The electrode holding and dispensing assembly of claim 10 wherein said clamp includes a clamp arm pivotally connected to said guide rail adjacent to said electrode seating site and means for pivoting said clamp arm in and out of engagement with an electrode located at said electrode seating site.

19. The electrode holding and dispensing assembly of claim 10 wherein said channel has locating pins formed therein at said electrode seating site.